

Shifting from Educational-Based to Skills-Based Hiring

March 9, 2023



Disclaimer

This report is intended to provide an overview of general business information relative to global employment conditions and considerations. It should not be interpreted as legal advice.

Please consult with legal counsel to ensure that you are in compliance with all applicable laws.

The Emerging Degree Reset How the Shift to Skills-Based Hiring Holds the Keys to Growing the **Workforce at a Time of Talent Shortage**

To what degree should recruiters care about university degrees?





This article is part of World Economic Forum Annual Meeting

In 2022, 75% of companies in a global survey reported talent shortages and difficulty hiring, a 16year high.













To What Degree **Should You Consider** A College Degree?

Degree requirements have long been used to filter candidates, and the rise of resume parsing technology only accelerated that trend.

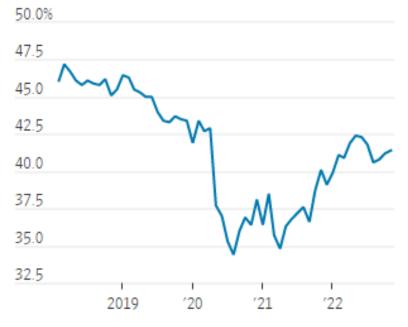
But there's a downside—many candidates without college degrees are prevented from accessing better jobs, despite having skills and experience that make them eminently qualified.

Now the tight labor market is prompting employers to reduce or eliminate degree requirements. Google, Delta Air Lines, and IBM are just a few of the companies shifting to data and insights-not just academic performance-to better gauge a candidate's employment potential.



Degree Decline

Percentage of U.S. job postings that require at least a four-year college degree



Note: Only includes job postings with educational requirements

Source: Burning Glass Institute analysis of Lightcast data

Skills-based hiring is increasingly used by major companies such as Google, Apple, IBM, Mastercard and Bank of America. This trend has big implications for how schools, colleges and other programs prepare people for jobs and careers.

Hiring employees based on demonstrated skills, not just educational attainment, will lead to a more diverse workforce and provide opportunities for people with workforce skills but no college degree to obtain better-paying jobs.

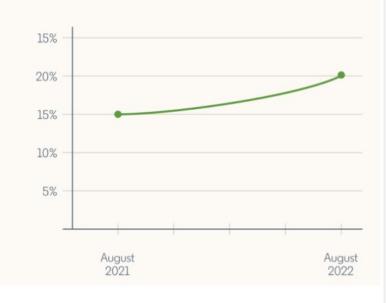
Jobs do not require 4-year college degrees...Employers do

- In 2017 51% of job listings required a four-year degree but by 2021 that number had dropped to 44% (The Burning Glass Institute analyzed data from millions of online job listings)
- Less than 7% of the world's population holds a Bachelor's degree
- 67% of Americans do not have a college education potentially opening 1.4 million jobs to workers without college degrees over the next 5 years
- Employers pay college graduates as much as 30% more
- More than 60% of middle-skilled positions in America are "soft bachelor's" jobs

1 in 5 job posts on LinkedIn don't require a four-year degree.

The share of these job posts has grown by +33% YoY.

Data: Paid job postings on LinkedIn in the U.S., Aug. 2021 – Aug. 2022.

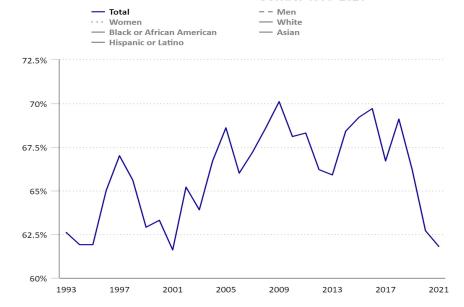


Source: LinkedIn, BBC, Bain

Reasons why skill-based hiring is on the Rise

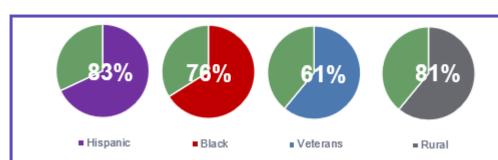
- **Tight Labor Market** when the demand for talent far outreaches supply, employers de-emphasize degrees
- Cyclical Reset Pandemic-related reset in roughly 548,000 job postings, involving 27% of middle- and high-skill occupations.
 - Job postings for intensive-care and critical-care nurses asking for a bachelor's degree declined by 12% between 2019 (from 35% to 23%)
 - Degree requirements for registered nurses fell by a more modest 5% points.
- **Decrease in College Enrollment** The number of total enrolled postsecondary students declined 3.29% YoY, the most significant rate of decline in enrollment since 1951.
 - Less than half of Generation Z high schoolers want a 4-year college degree, down 23% from May 2020.
 - Nearly one-third want several educational experiences, each of one year or less, rather than a traditional college experience.
- **Degree criterion for hiring could have human bias** requiring degrees eliminates 83% Hispanic, 76% Black, 61% Veterans and 81% rural residents from jobs that they are otherwise qualified to fill with the skills they have.

College enrollment rates of recent high school graduates 16 to 24 years old October 1993-2021



Click legend items to change data display. Hover over chart to view data Source: U.S. Bureau of Labor Statistics.



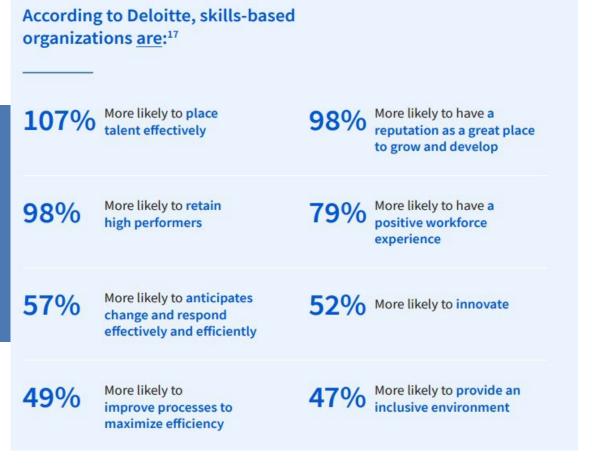


STARS – Skilled Through Alternative Routes

U.S. individuals at least 25 years old, currently active in the workforce, and having a high school diploma, but not having a bachelor's degree.

Skills-based Strategy

Workers have more options and opportunities for career advancement and growth, while businesses are better positioned to meet the growing demand for talent, achieve productivity goals, enhance competitiveness and implement true diversity in the workplace.



Being able to pivot and implement cutting-edge talent practices is more critical than ever to attract and retain highly skilled workers

UK Job Credentials



Key Areas of Talent Acquisition & Management for successful business operations in the talent tight market of 2023



Internal Mobility



Talent Retention



and Organisational Reputation



DEIB (Diversity, Equity, Inclusion & Belonging)



Agility & Operational Efficiency



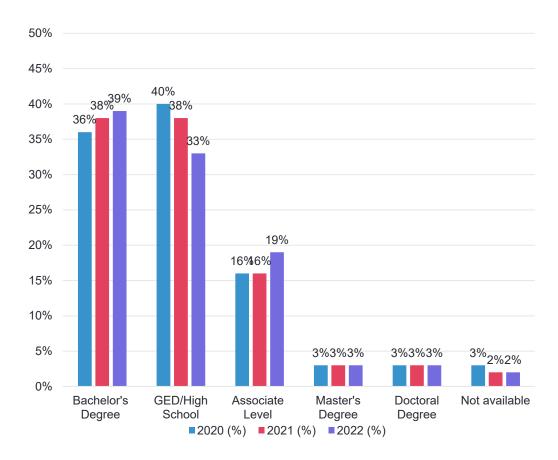
Organisational Innovation

- While degrees will remain an important credential, university decision makers may begin to tackle these challenges by offering more career-focused skills training in their programs to help graduates enter in-demand jobs with more relevant & applicable skillsets.
- **Industry micro credentials**, like professional certificates are becoming a popular and accessible option for individuals seeking to boost employability.
- Non-degree credentials are growing in popularity with 90% of students agreeing a professional certificate will help them stand out to employers
- 76% of employers stating they are more likely to hire a candidate who has earned a non- degree credential.
- There is a significant rise of skills-based assessments when recruiting talent which is seeing the role of the traditional, fouryear degree is in a state of flux.

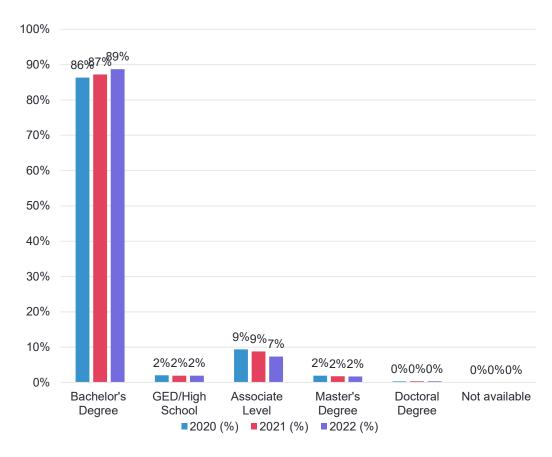
Education Requirements Over the Past Three Years

Overall Market

Job Postings per Education Level



IT
Job Postings per Education Level



Source: Gartner, Talent Neuron

Benefits of skill-based hiring

- 1. Attracting more candidates for job openings
 - Breaks the "paper ceiling," gives recruiters and hiring managers access to so much more talent.
 In the U.S., for example, nearly two-thirds of adults do not have a four-year degree.
- 2. Improves Diversity hiring. Furthers workplace diversity, equity and inclusion by opening doors for people historically excluded from jobs based on education. It also allows candidates to be considered equally if they can perform the duties required.
 - In the U.S., only 24% of Black adults and 17% of Latino adults have a four-year degree.
- 3. Better Quality Candidates According to the TestGorilla survey, 92.5% of companies have seen a reduction in their mis-hire rate, with 44% reporting a decrease of more than 25%.
- **4.** Accelerates Time to Hire companies surveyed by TestGorilla, 91% saw a reduction in their total time-to-hire, with 40% reporting a decrease of more than 25%
- **5.** Reduced Hiring Costs based on skills, fill vacancies faster reducing cost of advertising and marketing and cost savings for training. Employers pay college graduates as much as 30% more
- **6. Retention –** workers have more options and opportunities for career advancement and growth; Employees without college degrees also tend to stay in their roles 34% longer than those with degrees
- 7. Equity and Inclusion make decisions about hiring, pay, promotions, succession, and deployment based on people's skills rather than job history, tenure, or network
- 8. Reduces Degree Inflation requiring degrees for jobs that didn't previously require them



Outcomes for Companies using skills-based hiring

Extraordinary outcomes for companies

Our data shows that companies using skills-based hiring are experiencing dramatic improvements in performance across five key metrics:

89.8% 91.4% 92.5% 91.2% 91.1%

of organizations saw a reduction in cost-to-hire

of organizations saw a reduction in time-to-hire

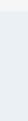
of organizations saw a reduction in mis-hires

of organizations saw an increase in retention

of organizations saw an increase in diversity







Example: Grow candidate pool, reduce cost

Sample Cybersecurity Job Requirements

IT Security Analyst

Qualifications

- . 3+ years of progressively increasing responsibility in the areas of information security, cloud security, or cybersecurity
- · Bachelor's degree in IT, cybersecurity or related area of study, or comparable work experience
- Prior cloud (AWS) experience.
- Strong understanding of restful API development, SDLC processes, and security automation desired
- · Experience with multiple environments and operating systems, devices and databases including Windows Server, Active Directory, VMWare, Azure, AWS.
- · Strong analytical and problem solving skills
- · Strong Incident Response background is preferred
- . Fundamental understanding of security related technologies such as SIEM and SOAR
- Must have obtain and maintain one or more Cloud or Security certifications such as AWS, Azure, CISSP, CISA, CISM, CIPT, SSCP, CCSP
- · Strong understanding of information security standards, concepts, controls, testing techniques and technical risk assessment

Removing a BA requirement

Saves \$16,000 and grows entrylevel candidate pool by 61%

Building, not buying, emerging cybersecurity skills

Saves **\$10,000+** for each emerging skill

Eliminating specific certification requirements

> Drops average salary costs by \$9,000

State of Skills-based Hiring 2022 report, 76% of employers use some skills-based hiring to find new talent, with almost 55% using role-specific skills tests



Skills-first criteria are better predictors of job performance than educational background or work experience

Hiring based on skill is....

5x

More predictive of future job Performance than educational Background

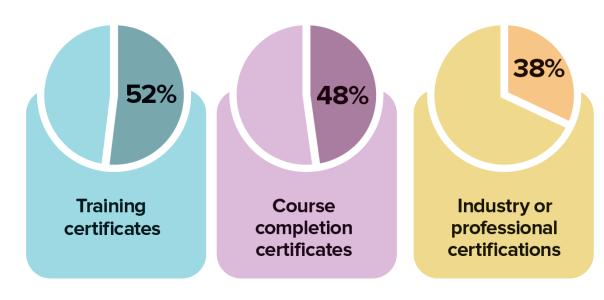
2.5x

More predictive of future work Performance than work Experience

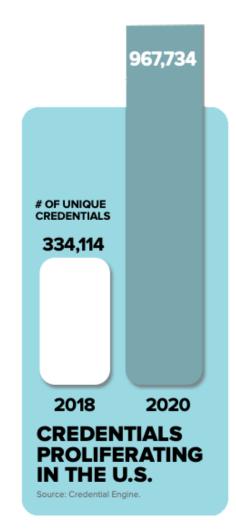
Alternative Credentials

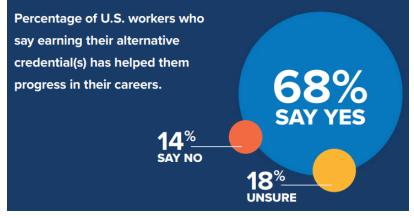
COMMON CREDENTIALS

In a recent survey of 1,525 U.S. workers, 45 percent said they hold at least one alternative credential. Those individuals were most likely to hold:



Source: Making Alternative Credentials Work: A New Strategy for HR Professionals, SHRM and the SHRM Foundation, April 2022.





Accenture

Accenture launched an apprenticeship program in 2016 and has since hired 1,200 people, 80% of whom joined the company without a four-year-degree. In 2022, it expanded the program with the goal of filling 20% of its U.S. entrylevel roles — everything from application development and cybersecurity to cloud and platform engineering from apprenticeships.

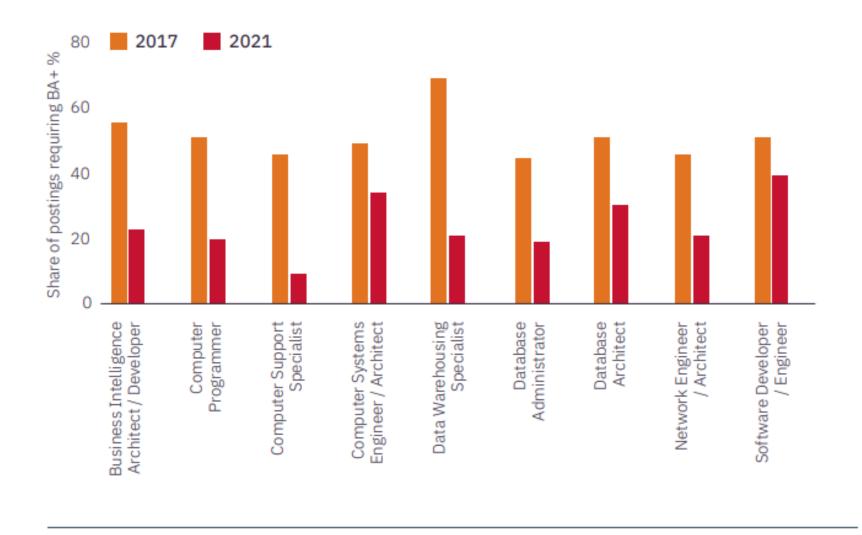


FIGURE 6: Accenture: Degree reset in IT occupations

Notes: Bars show the vacancy-weighted share of BA+ postings in specific IT occupations at Accenture. Source: Analysis of Emsi Burning Glass data, 2017 and 2021.



Dell Technologies last year expanded its definition of university recruitment and developed a program focused on hiring from community colleges. Company's goal is to redefine what it considers to be recent graduate talent to include associate degrees, apprenticeships, and certificate programs. Cybersecurity, engineering, tech support, tech sales, and marketing.



No longer requires college degrees for the majority of its entry-level jobs. To expand its talent pool even further, the company launched its Pathways program in 2018. It works with nonprofits and community colleges with the goal of hiring 10,000 people from low- and moderateincome neighborhoods by 2023. The bank exceeded that number two years ahead of schedule and committed to hiring an additional 10,000 individuals by 2025.



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Hires candidates with all levels of education and uses a variety of training tools, including in-classroom and online instruction, to develop their skills. As employees advance within the company, their training grows to include education on supervisory and leadership skills. CVS Health's retention rate is twice as high for people who go through their training programs as it is for people who arrive at the company through traditional channels.



More than 100,000 people in the U.S. have completed **Google's online college-alternative program** that offers training in fast-growing fields such as digital marketing and project management, the company said. In 2021, Google added three new certificates that can be completed within three to six months and don't require prior experience or a college degree: Data Analytics, Project Management and UX Design (user experience design). Grow with Google program



Apprenticeship program. In 2016, IBM revised job descriptions to focus on skills and not just educational attainment. On average, 50 percent of the company's posted positions in the U.S. don't require a bachelor's degree.

New-collar jobs - aligned to careers that require the right set of skills and a commitment to lifelong learning. "New-collar roles are in some of technology's fastest-growing fields, including data science, cloud computing, application development, cybersecurity and digital design."

IBM's apprenticeship program gives candidates without advanced degrees an opportunity to build new technical skills and earn industry-recognized credentials while getting paid. In 2017, the program launched three career tracks and now has more than 10 job areas, including marketing, cybersecurity, data science, design and sales.

Where Do I Train for a **New-Collar Career?**



Schools

Trade/Vocational





Companies No Longer Requiring Degrees (* for most jobs)

- **Apple** iPhone buyers, Engineering Project Managers
- **Bank of America** Admin Asst, Lending Associates, **Investment Analysts**
- **Chipotle** District Manager, General Manager, AP Director
- **Costco Wholesale** Phamacy Tech, Stocker, Order Picker
- **CVS** Entry level not requiring HS or GED or GPA requirements
- **Google** Network Specialist, Software Engineer, Account **Strategies**
- **Hilton** Even Manager, Front Office Manager
- **Home Depot** Dept Supervisors, Assistant Store Manager, **Product Manager**
- **IBM** Data scientists, Privacy Analysts, Software Engineers, **Digital Marketing Managers**
- Lowe's Brand advocates, Sales Associates

- **Netflix** Cloud, Platform, and Software Engineers
- **Nordstrom** Site reliability Engineers, Loss Prevention Ambassadors, Strategy program managers
- Penguin Random House Editorial and Marketing Assistants and Social Media Marketing Managers.
- Publix ISTS Support Technicians, Retail Setup Coordinators, and Social Media Specialists.
- **Starbucks** Baristas, Shift Supervisors
- **State Street** Data Support Analyst, Assistant Manager
- **Tesla** Systems Validation Engineer, Integration Engineer, Field Support Engineer, and Software engineer
- Whole Foods Software development engineers, salesforce administrators, and team leaders

Opportunity to Reimagine Hiring Strategies and Re-Think what it means to nurture and build teams for challenges that lie ahead

1. Hire for learnability

We must fast-track training and reskilling of existing employees to ensure we have a future-ready workforce, while also attracting those who are not currently participating in the labour market. Thinking about 'learnability' when hiring is the best way to prepare for whatever new jobs and skills will be needed in the next year or the next decade.

2. Promote based on what you can do, not what you have done

By hiring based on potential versus past performance, businesses can fill talent shortages while accessing experience, unique skills and innovative thinking. In doing so they can develop talent and advance people internally, saving time and money on external recruiting.

3. Have regular career conversations with employees

This helps to enable a learning culture and there is a direct correlation with higher employee engagement and productivity. Employees regularly say they would be more engaged at work if their managers have ongoing career conversations with them. By encouraging and focusing on development, organizations foster a workplace where people are more involved, productive and focused on career development.

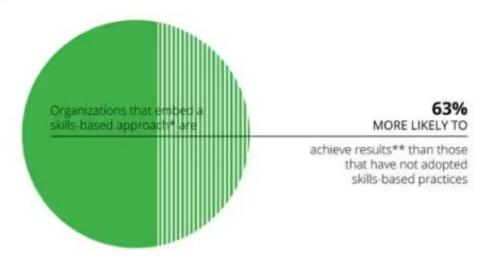
Recredential appropriate jobs for skill-first hiring

- Removing degree and work experience requirements. Skills that are merely assumed by these requirements are replaced with the particular technical, industry-specific, and soft skills that are needed for the position (and can be objectively measured).
- Ranking identified skills in order of importance. These skills should also be divided into required (i.e., must have on Day 1) and preferred.
- Rewriting job descriptions using the identified skills (10 at most). Job descriptions should also be reviewed to ensure they use language that is jargon-free and understandable by a broad audience. And it is a good idea to include an explicit statement about inclusivity to signal commitment to considering diverse candidates.
- **Redesigning prescreening systems.** Experts in unconscious bias can suggest methods for mitigating bias in this first phase of the candidate evaluation process—methods such as time-limiting prescreening assessments, focusing on underlying skills in candidates' experience, or masking candidate names and photos on application materials.
- Building and educating inclusive hiring teams. Consider creating candidate evaluation and interview panels that are diverse across inherent dimensions such as race, gender, and sexual orientation as well as across acquired traits of experience, education, and training. A good rule of thumb is that at least 30% of panel members should represent diverse groups across dimensions. Companies then need to educate panel members on bias-mitigating processes to ensure they are understood and followed.
- Standardizing skills-first interview questions and evaluation criteria. This step entails focusing the interview process on demonstrated proficiency in required skills. Interview panels should use consistent, skills-first interview guides that list required skills and have been reviewed by a diverse set of colleagues. Candidates' interview performance should be evaluated using a clear, skillsfirst rubric tied to the interview guide.

New operating model for work and the workforce

- Organizational Agility, growth, innovation, diversity, inclusion, and equity and the ability to offer a positive workforce experience for people.
 - Basing people decisions on skills more than jobs, organizations can still have a scalable, manageable, and more equitable way of operating.
 - View employee's contributions focused on outputs and skills rather than on years with a job title
 - Skills-based organizations let people's uniqueness as humans shine through, with work tailored to their strengths
 - More targeted in recruitment, in internal mobility of talent, and applying the right talent to the right tasks and projects, and thereby also accelerate business performance

Skills-based organizations see results



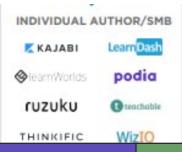
Additional Resources

- Why Skills-Based Hiring Is on the Rise
- The skills-based organization: A new operating model for work and the workforce
- Employers Rethink Need for College Degrees in Tight Labor Market, Google, Delta Air Lines and IBM have reduced requirements for some positions
- Some CEOs Suggest Dropping Degree Requirements in Hiring
- Dismissed by Degrees; How degree inflation is undermining U.S. competitiveness and hurting America's middle class (2016-2017)
- 34% OF COMPANIES ELIMINATED COLLEGE DEGREE REQUIREMENTS TO INCREASE NUMBER OF APPLICANTS IN PAST YEAR
- Employers Are Shifting from Degree-Based to Skills-Based Hiring, and It's About Time
- Skills-Based Hiring Is on the Rise
- University or work-life experience? Do college degrees matter? (World Economic Forum)
- The Emerging Degree Reset
- Eliminate a Degree of Difficulty: Hire for Skills, Not School





Alternative Credentials









Certificate of Course Completion			Certificate of Training Completion		Certification
Massive open online courses (MOOC) – based certificates	Micro-credentials	Academic and continuing education certificates	Coding Bootcamp completion certificates	Apprenticeships	Industry-recognized certifications
Short, mostly asynchronous, online courses	More than a single course but less than a full degree	For-credit academic certificates, or non-credit continuing education certificates	Full or part-time intensive coding training programs	Blended work experience with a structured program of coursework	Awarded by as an industry or professional association Based on performance or an assessment
edX Coursera Crehana	Udacity nanodegrees Crehana Micro Degrees edX Micro Bachelors	TVET certificate short- cycle higher education program University and College Course Certificates	General Assembly Holberton Laboratoria 42	IBM Lockheed Martin National apprentice-type programs (e.g. Brazil, Chile, Colombia, Costa Rica, Mexico, and Peru)	Amazon Web Service (AWS), Google, Microsoft, Cisco, CompTia Automotive Service Excellence (ASE)
1-10+ hours	100 hours – 1 year	100 hours – 4 years	6-28 weeks (longer bootcamps (9-24 months)	6 weeks – 6 years	Preparation: 3 months to 1 year
Free - \$300	\$30 - \$12,000	\$7,000 - \$20,000	Free - \$15,000 (longer bootcamps: Free - \$85,000	N/A	Free - \$1,400 for the exam

IN 2018, THERE WERE: BY 2020, THE NUMBER ALMOST TRIPLED TO: 967,734 unique credentials in the U.S.



UNSURE

"One of the reasons IT is comfortable with alternative credentials is because traditional education was lagging on skills needed in the marketplace. In order to continue to rely on [these credentials], we need to think through what jobs ... cannot be filled by professional experience, because they are new needs; or [by] academic experience, because they do not meet the skills needs."

-Marc, Learning Labs participant

WHY ALTERNATIVE **CREDENTIALS ARE POPULAR NOW**







Occupations Open to Alternative Credentials

Information and communication technology: People with the needed skills who lack degrees can earn high salaries in new and emerging jobs in information and communication technology (ICT).

Computer programmers, developers, security analysts, and computer support specialists do not need to hold academic degrees;

ICT professionals can hold various types of alternative credentials, including course certificates, coding bootcamp certificates, and certifications. Notably, these occupations offer competitive pay to alternative, non-degree credential holders, compared to other occupations requiring degrees.

Engineering: Many occupations in engineering still require bachelor's or master's degrees. Technicians and drafters often hold two-year degrees, certificates, or certifications; some gain their credential through apprenticeship.

Construction, installation, repair, and transportation. Many jobs in construction, installation, repair, and transportation require apprenticeships. They include carpenters, construction laborers, electrical power-line installers and repairers, electricians, truck drivers, plumbers, and sheet metal workers

Research shows many jobs across industries and at all levels of seniority, like these examples, are good candidates for skills-first hiring

Information technology

Programmer

Systems administrator

Systems analyst

Healthcare

Nurse

Medical assistant

Operating room technician

Business management and operations

Project coordinator

Process optimization

Supervisors and managers

Customer service

Call center representative

Airport service representative

Maintenance and manufacturing

Engineer

Machinist

Quality technician

Mechanic

Sales

Sales representatives and managers

Retail sales associate

Biggest Occupations Experiencing Significant Structural Reset

High-Skill Structural Reset Occupations

- Healthcare Administrator
- Insurance Sales Agent
- Network/Systems Administrator
- General Manager
- Personal Financial Advisor
- Construction Manager
- Loan Officer
- Office Manager
- Computer Programmer
- 10. Compensation/Benefits Analyst

Middle-Skill Structural Reset Occupations

- 1. Retail Store Manager/ Supervisor
- 2. Real Estate Agent/ Broker
- 3. Maintenance/ Service Supervisor
- 4. Property Real Estate/ Community Manager
- 5 Human Resources Assistant
- 6. Preschool/Childcare Teacher
- 7. Production Supervisor
- 8. Coach
- 9. Sales Supervisor
- 10. Bill and Account collector

Biggest Occupations Experiencing Significant Cyclical Reset

High-Skill Structural Reset Occupations

- 1. Sales Representative
- 2. Recruiter
- 3. Software QA Engineer/Tester
- 4. HR/ Labor Relations specialist
- Database Administrator
- Clinical Case Manager
- Nursing Manager/ Supervisor
- **Executive Assistant**
- 9. Customer Service Manager
- 10. Banking Branch Manager

Middle-Skill Structural Reset Occupations

- 1. Registered Nurse
- 2. Bookkeeper/ Accounting Clerk
- 3. Computer Support Specialist
- 4. Intensive Critical Care Nurse
- 5. Sales Assistant
- 6. Billing Clerk/ Specialist
- 7. Construction foreman
- 8. Interpreter/ Translator
- 9. Insurance Claims/ Policy Clerk
- 10. Residential Assistant/ Advisor

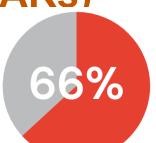
Skilled Through Alternative Routes (STARs)

- STARs are defined as individuals at least 25 years old, currently active in workforce, and having a high school diploma, but not having a bachelor's degree.
- STARs have developed valuable skills on the job, through military service, community college, or through other alternative routes.
- Research has found that <u>millions of STARs have demonstrated skills for</u> roles with salaries at least 50% higher than their current job.
- STARs represent a massive pool of talent, comprising half of the US workforce. If STARs were a country, they would be the 20th largest nation on Earth—ahead of the UK and France.
- STARs can be found in every field and occupation across the labor market, from travel and hospitality to retail, health care, information technology, manufacturing and more.



50% of all workers in the U.S. are STARs

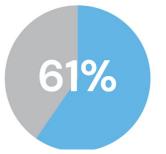
That's over 70 million workers who are learning on the job and developing skills to make transitions to higher-paying work.³



66% of Rural workers are STARs

10.3 million STARs live across rural America.8

The prevalence of rural STARs underscores the importance of creating promising job pathways all across the country.



61% of Veteran workers are STARs

4.4 million of the 7.3 million veterans active in the workforce are STARs.⁹

Enlisted military leave their service with many skills that can be applied to good jobs in the civilian workforce — if employers hire for skills.



61% of Black workers are STARs

Black STARs, at 10 million strong, exceed the population of New York City, the largest city in the U.S. $^{4\,5}$

Our research shows that close to half these STARs are ready for higher-wage work today, while others require additional training to move to higher-paying work.

See the Black STARs data story



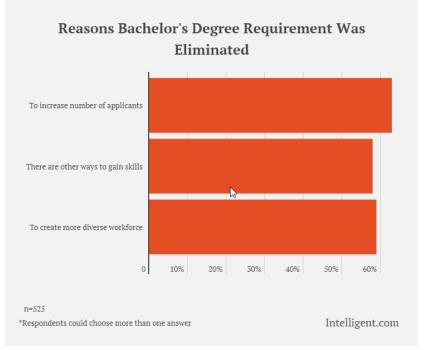
55% of Hispanic workers are STARs

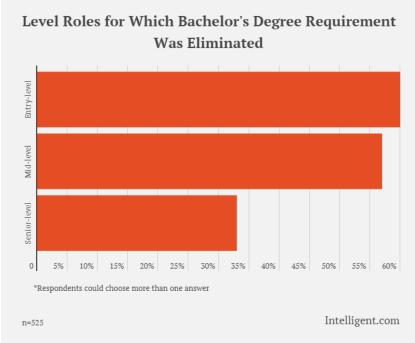
13.3 million Hispanic workers are STARs, more than the population of New York City and Los Angeles combined. $^{6.7}$

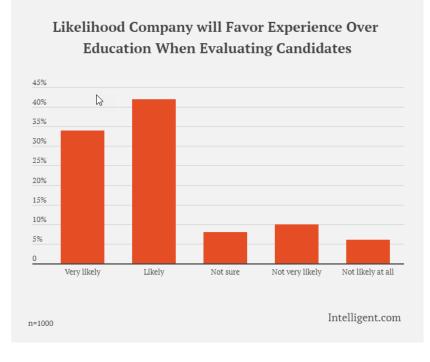
Hispanic STARs are overrepresented in many essential jobs, especially in farming, construction, and transportation.

See the Hispanic STARs data story

53% of hiring managers say their company eliminated the requirement for a bachelor's degree for some roles in the past year

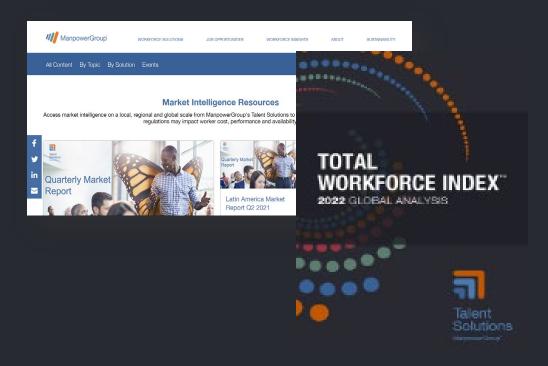






- 64% say the reason for removing requirement was to increase the number of applicants
- 77% of companies are currently offering apprenticeships or plan to by the EOY
- 76% of hiring managers say experience is favorable to education
- 46% say attrition is a problem

Market Intelligence On-Demand



Total Workforce Index http://www.TotalWorkforceIndex.com

Global Insights Library

https://workforce-

resources.manpowergroup.com/marketintelligence-resources